

IN THE CLAIMS:

The following is a current listing of claims and will replace all prior versions and listings of claims in the application. Please amend the claims as follows:

1-9. (Canceled)

10. (Currently Amended) A method, ~~of transferring incoming sound~~, comprising:

a device receiving incoming sound;

(a) the device storing data representative of the incoming sound in a buffer;

(b) in response to determining, at a first point in time, that the incoming sound satisfies a recording initiation criteria, the device: ~~monitoring one or more attributes of the incoming sound to produce indications of sound segment presence and effective sound absence based on the one or more attributes;~~

retrieving data from the buffer, wherein the data retrieved from the buffer is representative of the incoming sound received during an interval of time preceding the first point in time;

storing the data retrieved from the buffer on a memory medium; ~~(e) transferring a predetermined interval of the sound in the buffer when the one or more sound attributes produce an indication of sound segment presence, the predetermined interval extending to a point in time when the indication is produced;~~

initiating storage, on the memory medium, of data that is representative of incoming sound received after the first point in time; and ~~(d) transferring the sound following the indication; and~~

in response to determining that the received incoming sound satisfies a recording termination criteria at a second point in time subsequent to the first point in time, the device ~~discontinuing storing data representative of incoming sound on the memory medium. (e) terminating said step (d) when the one or more sound attributes produce an indication of effective sound absence.~~

11. (Previously Presented) A method according to claim 10, wherein the buffer is a FIFO buffer.

12. (Currently Amended) A method in accordance with claim 10, wherein the ~~one or more~~ sound attributes recording initiation criteria comprises ~~sound intensity level~~, and wherein the ~~monitoring produces an indication of sound segment presence when the~~ a sound intensity level of the incoming sound exceed[s]ing a first threshold.

13. (Currently Amended) A method in accordance with claim 40 ~~12~~, wherein the ~~one or more~~ sound attributes recording termination criteria comprises ~~sound intensity level~~, and wherein the ~~monitoring produces an indication of effective sound absence when the~~ a sound intensity level of the incoming sound being is below a first ~~second~~ threshold.

14. (Currently Amended) A method in accordance with claim 40 ~~13~~, wherein the second threshold is lower than the first threshold, ~~one or more sound attributes comprise sound intensity level, wherein the monitoring produces an indication of sound segment presence when the sound intensity level exceeds a first threshold, and wherein the monitoring produces an indication of effective sound absence when the sound intensity level is below a second threshold.~~

15. (Currently Amended) A method in accordance with claim 40 ~~13~~, wherein the second threshold is the same as the first threshold, ~~one or more sound attributes comprise sound intensity level, wherein the monitoring produces an indication of sound segment presence when the sound intensity level exceeds a first threshold, and wherein the monitoring produces an indication of effective sound absence when the sound intensity level is at or below the first threshold.~~

16. (Currently Amended) A method in accordance with claim 10, wherein the recording initiation criteria comprises monitoring comprises ~~monitoring~~ a spectral power densit[ies]y of the sound exceeding a first threshold.

17. (Currently Amended) A method in accordance with claim 10, wherein the recording initiation criteria monitoring comprises ~~monitoring~~ at least one moving average of the sound intensity level of the incoming sound exceeding a first threshold.

18. (Currently Amended) A method in accordance with claim 10, further comprising varying the length of the data retrieved from the buffer, wherein: said step (e) comprises recording the sound in the buffer on a recording medium when the monitoring produces an indication of sound segment presence; and said step (d) comprises recording the sound on the recording medium following the indication of sound segment presence.

19. (Currently Amended) A method in accordance with claim 10, wherein the length of the data retrieved from the buffer is varied based on at least one of: a sound intensity level of the incoming sound, and a spectral power density of the incoming sound, said step (e) comprises wirelessly transmitting the sound in the buffer when the monitoring produces an indication of sound segment presence; and said step (d) comprises wirelessly transmitting the sound following the indication of sound segment presence.

20. (Currently Amended) A method in accordance with claim 10, further comprising transmitting the data stored on the memory medium to another device, wherein: said step (e) comprises reproducing the sound in the buffer when the monitoring produces an indication of sound segment presence; and said step (d) comprises reproducing the sound following the indication of sound segment presence.

21. (Currently Amended) A method, ~~of sound-activated transfer of incoming sound, the method comprising:~~

a device recording incoming sound;

the device identifying, within the incoming sound, ~~non-overlapping~~ a first time segment[[s]] of corresponding to sound that is above a threshold and a second time segment, immediately preceding the first time segment, corresponding to sound that is below the threshold; effective sound-absence within the incoming sound;

the device storing, on a first recording medium, ~~transferring~~ data corresponding to sound recorded during the first time segment[[s]] of sound; and

the device storing, on a second recording medium, data corresponding to sound recorded during a first sub-portion of determining a first plurality of intervals within the second time segment[[s]] of effective sound absence, each interval that immediately precedes preceding one of the beginning of the first segment[[s]], wherein data corresponding to sound recorded during a second sub-portion of the second time segment that is not part of the first sub-portion is not stored on the second recording medium. of sound, each interval being part of and associated with a segment of effective sound absence, the plurality of intervals comprising at least one interval shorter than a segment of effective sound absence associated with said at least one interval; and
transferring the first plurality of intervals.

22. (Currently Amended) A method in accordance with claim 21, wherein the first recording medium and the second recording medium are the same, each segment of effective sound absence located between two segments of sound comprises an interval of the first plurality of intervals:

23-24. (Canceled)

25. (Currently Amended) A method in accordance with claim 21, further comprising wherein: said step of transferring the segments of sound comprises transmitting the data corresponding to the sound recorded during the first time segment and the data corresponding to the sound recorded during a first sub-portion of the second time segment to another device. segments of sound; and said step of transferring the first plurality of intervals comprises transmitting the first plurality of intervals.

26. (Canceled)

27. (Currently Amended) A method in accordance with claim 21, further comprising varying the length of the first sub-portion of the second time segment, dynamically defining lengths of the intervals.

28. (Currently Amended) A ~~sound recorder device~~, comprising:
an input interface configured to receive ~~receiving digitized waveforms~~ input data representing sound;
~~a memory storing a program;~~
a recording interface configured to facilitate recording data on a recording medium;
~~a processor; configured to execute the program; and~~
memory having stored thereon instructions executable by the device to cause the device to: an
~~interface to a recording medium, the interface being coupled to the processor; wherein the processor, under control of the program, is configured to:~~
identify ~~determine~~ one or more detected sound segments and one or more effective
silence segments within the digitized waveforms sound;
~~transfer~~ ~~cause~~ data representing the one or more detected sound segments to ~~be~~
~~transferred through the recording interface to be recorded on the recording~~
~~medium; and~~
~~causes a plurality of intervals of the digitized waveforms to be transfer~~[[red]] data
representing one or more play-back periods ~~through~~ to the recording interface to
be recorded on the recording medium, wherein the one or more play-back periods
are each within one of the one or more effective silence segments and
immediately preceding one of the one or more detected sound segments, wherein
at least one play-back period is shorter than the effective silence segment that it is
within; each interval immediately preceding one of the sound segments, at least
one interval being shorter than time period between the sound segments
immediately following and immediately preceding said at least one interval;
wherein data representing portions of the one or more effective silence segments that are
not part of the one or more play-back periods are not transferred to the recording
interface.

29. (Currently Amended) A ~~sound-recorder device~~ device in accordance with claim 28, further comprising a microphone configured to receive the sound and generate ~~analog the input data representing waveforms corresponding to the sound,[[,]] and an analog-to-digital converter~~ coupled to the microphone and to the input, the analog-to-digital converter receive the analog waveforms and generate the digitized waveforms from the analog waveforms.

30. (Currently Amended) A ~~sound-recorder device~~ device in accordance with claim 28, further comprising a buffer[[,]] ~~wherein the processor is configured to store a portion of the input data that represents at least one of the one or more play-back periods, wherein the portion of the input data is stored by the buffer prior to the device transferring the data representing the at least one play-back period to the recording interface, cause the intervals to be stored in the buffer before the processor causes the intervals to be recorded on the recording medium.~~

31. (Currently Amended) A ~~sound-recorder device~~ device in accordance with claim 30, wherein the buffer comprises a FIFO memory device.

32. (Currently Amended) A wireless communication device, comprising:
a microphone configured to receive sound waves; ~~and generate electrical waveforms corresponding to the sound waves;~~
an converter input interface coupled to the microphone and configured to ~~receive the electrical waveforms and convert the electrical waveforms into digitized representations of~~
generate input data representative of the sound waves;
a memory ~~storing a program;~~
~~a processor;~~
wherein ~~the processor is coupled to receive, from the converter, the digitized representations of the sound waves;~~
an antenna; and
a transmitter; ~~coupled to the antenna;~~
a processor; and
memory having stored thereon instructions executable by the processor to cause the sound recorder to: wherein ~~the program is executable by the processor to:~~
(i) identify ~~determine~~ one or more detected sound segments and one or more effective silence segments ~~periods~~ within the ~~digitized representations of the~~ sound waves;
transmit the one or more detected sound segments to a receiving device; and
(ii) determine a plurality of intervals within the effective silence periods; transmit one or more play-back periods to the receiving device, wherein the one or more play-back periods each interval are each within one of the one or more effective silence segments and immediately preceding one of the one or more detected sound segments, wherein at least one play-back period is shorter than the effective silence segment that it is within; and cause the transmitter to transmit, via the antenna, the sound segments and the intervals, without transmitting portions of the effective silence periods that are outside of the intervals.
wherein portions of the one or more effective silence segments that are not part of the one or more play-back periods are not transmitted.

33. (Currently Amended) A wireless communication device in accordance with claim 32, further comprising a buffer, wherein the ~~processor~~ wireless communication device is configured to store a portion of the input data that includes at least one of the one or more play-back periods prior to the at least one play-back period being transmitted. ~~the intervals in the buffer before the processor causes the transmitter to transmit the intervals.~~

34. (Currently Amended) A method comprising:
a device storing a digital representation of incoming sound in a buffer;
the device monitoring one or more attributes of the incoming sound for the presence of a first predetermined condition;
the device determining that the first predetermined condition is detected;
responsive to said determining, the device transferring to a recording medium:
a digital representation of the incoming sound corresponding to a first time period beginning a predetermined length of time before the first predetermined condition is detected and continuing until at least until the first predetermined condition is detected; and
~~responsive to said determining, transferring to a recording medium~~ a digital representation of the incoming sound corresponding to a second time period beginning when the predetermined condition is detected and continuing until ~~the a~~ a second predetermined condition is ~~no longer~~ detected.

35. (Previously Presented) A method in accordance with claim 34, wherein the buffer is a FIFO (first-in, first-out) memory.

36. (Currently Amended) A method in accordance with claim 34, wherein the one or more attributes include sound intensity level, wherein determining that the first predetermined condition is detected comprises determining that the indication is produced when the sound intensity level of the incoming sound exceeds a first threshold.

37. (Currently Amended) A method in accordance with claim 34, wherein the first predetermined condition is based on at least spectral power densities of the incoming sound.

38. (Currently Amended) A method in accordance with claim 34, wherein the first predetermined condition is based on at least one moving average of an intensity level of the incoming sound.

39. (Currently Amended) A method in accordance with claim 34, wherein said transferring comprises converting the digital representations of the incoming sound into a format suitable for wireless transmission and subsequently transmitting the digital representations wirelessly to the recording medium.

40. (Previously Presented) A method in accordance with claim 34, further comprising reproducing the incoming sound, wherein said reproducing includes converting the digital representation of the incoming sound to analog audio signals and outputting the analog audio signals via a speaker.

41. (Previously Presented) A method in accordance with claim 34, wherein the digital representation of the incoming sound corresponding to the second time period is transferred to the recording medium from the buffer.

42. (Currently Amended) A method in accordance with claim 41, wherein the first predetermined condition is detected by monitoring the digital representation of the incoming sound.

43. (Currently Amended) A recording device comprising:
a buffer configured to store a digital representation of incoming sound; and
a ~~first~~ processing unit configured to monitor the incoming sound to detect the presence of a first
predetermined condition based on one or more attributes of the incoming sound; ~~and~~
wherein the recording device is configured to:

~~a second processing unit, wherein the second processing unit is configured; transfer,~~ upon
detection of the first predetermined condition, ~~to transfer,~~ from the buffer to a
recording medium, a digital representation of the incoming sound corresponding
to a first time period beginning a predetermined length of time before the first
predetermined condition is detected and continuing at least until the first
predetermined condition is detected;

~~wherein the recording device is configured to transfer, to the recording medium, a digital~~
representation of the incoming sound corresponding to a second time period
beginning when the first predetermined condition is detected and continuing until
~~the a second~~ a second predetermined condition is ~~no longer~~ detected.

44. (Previously Presented) A recording device in accordance with claim 43, further
comprising a conversion unit including a microphone and an analog-to-digital (A/D) converter,
wherein the A/D converter is configured to:

receive analog sound signals from the microphone;
convert the analog sound signals into digital sound signals; and
store the digital sound signals in the buffer.

45. (Previously Presented) A recording device in accordance with claim 43, wherein the
buffer is a FIFO (first-in, first-out) memory.

46. (Currently Amended) A recording device in accordance with claim 43, wherein the first
predetermined condition is satisfied when a sound intensity level of the incoming sound exceeds
a predetermined threshold, and wherein the ~~first~~ processing unit is configured to detect when the
sound intensity level exceeds a first threshold.

47. (Currently Amended) A recording device in accordance with claim 43, wherein the first predetermined condition is based on spectral power densities of the incoming sound.

48. (Currently Amended) A recording device in accordance with claim 43, wherein the first predetermined condition is based on at least one moving average of an intensity level of the incoming sound.

49. (Previously Presented) A recording device in accordance with claim 43, wherein the recording device includes the recording medium.

50. (Previously Presented) A recording device in accordance with claim 43, wherein the recording device includes:

an RF unit configured to convert the electrical representation of the incoming sound into a format suitable for transmission as electromagnetic signals; and
a transmitter coupled to the RF unit and configured to transmit the electromagnetic signals.

51. (Previously Presented) A recording device in accordance with claim 43, wherein the recording device includes:

a digital-to-analog (D/A) converter configured to receive and convert the electrical representation into analog signals; and
a speaker coupled to receive the analog signals from the D/A converter and to output the analog signals as audio signals.

52. (Previously Presented) A recording device in accordance with claim 43, wherein the digital representation of the incoming sound corresponding to the second time period is transferred to the recording medium from the buffer.

53. (Currently Amended) A recording device in accordance with claim 43, wherein the first processing unit is configured to detect the first predetermined condition by monitoring the digital representation of the incoming sound.